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[54] **MAGNETO-OPTICAL RECORDING AND REPRODUCING DEVICE HAVING LIGHT INTERRUPTING FORMING MAIN ROBE AND SIDE ROBE LIGHT BEAM PORTIONS**

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[30] **Foreign Application Priority Data**

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[52] **U.S. Cl.** 369/13; 369/288; 428/694 EC; 360/114

[58] **Field of Search** 369/13, 275.2, 288, 369/14, 275.3, 110, 116; 360/114, 59, 131; 365/122; 428/694 MM, 694 EC

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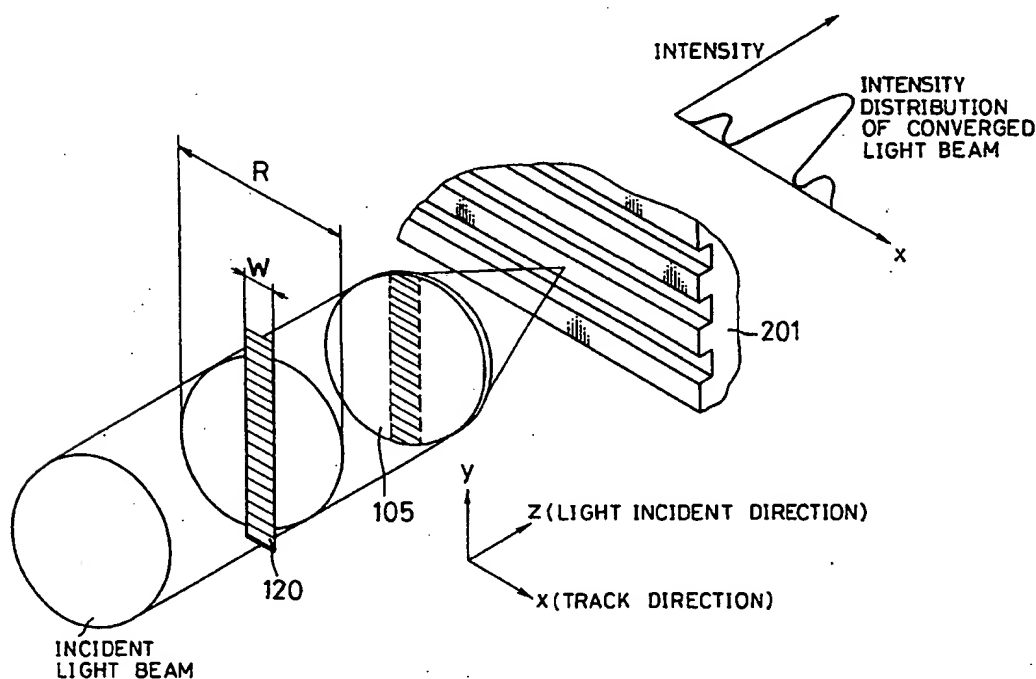
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[57] **ABSTRACT**

A magneto-optical recording and reproducing device is provided with a magneto-optical disk for reproducing recorded information using light, a semiconductor laser, an objective lens for converging a light beam emitted from the semiconductor laser onto the magneto-optical disk and a light interrupting member for interrupting a portion of a light beam before it is incident on the objective lens. The magneto-optical disk is composed of a readout layer which is predominant in in-plane magnetization, and in which a transition occurs to be predominant in perpendicular magnetization as temperature thereof is raised and a recording layer for recording thereon information using a perpendicular magnetization. In this arrangement, since the light interrupting member is provided, a light spot can be made smaller, thereby improving a recording density. Moreover, even when temperature of the readout layer is raised due to a side robe generated by the light interrupting member, in-plane magnetization is maintained in the readout layer. Thus, interference by unwanted reproducing signals due to the side robe can be prevented, thereby improving a reproducing signal quality.

20 Claims, 24 Drawing Sheets





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[54] **INFORMATION REPRODUCING METHOD
AND APPARATUS FOR REPRODUCING
INFORMATION BY MOVING MAGNETIC
WALL**

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[57] **ABSTRACT**

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[52] **U.S. Cl.** 369/13; 369/47

[58] **Field of Search** 369/13, 14, 116,
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4 Claims, 6 Drawing Sheets